Yukon
Health and Social Services

Yukon Influenza Surveillance Report
Influenza Season: 2009-2010
Summary Report
FluWatch Week 44 (November 1st - 7th, 2009)

Prepared by Yukon Communicable Disease Control
Report Written: November 13th, 2009
Disseminated: November 13th, 2009

Report Highlights

This surveillance report produced by YCDC summarizes influenza activity in the Yukon for the 2009-2010 season, including FluWatch weeks 35 to 44.
Please note that FluWatch reports are reported one week behind the current date.

2009-2010 FluWatch Weeks Calendar: http://www.phac-aspc.gc.ca/fluwatch/09-10/09-10cal-eng.php

Since week 41, influenza activity indicators remain elevated. Compared to week 43, week 44 showed slightly increased ILI in emergency room visits from WGH hospital and sentinel reports. Week 44 also showed continued elevated activity in the percentage of pH1N1 positive laboratory specimens.

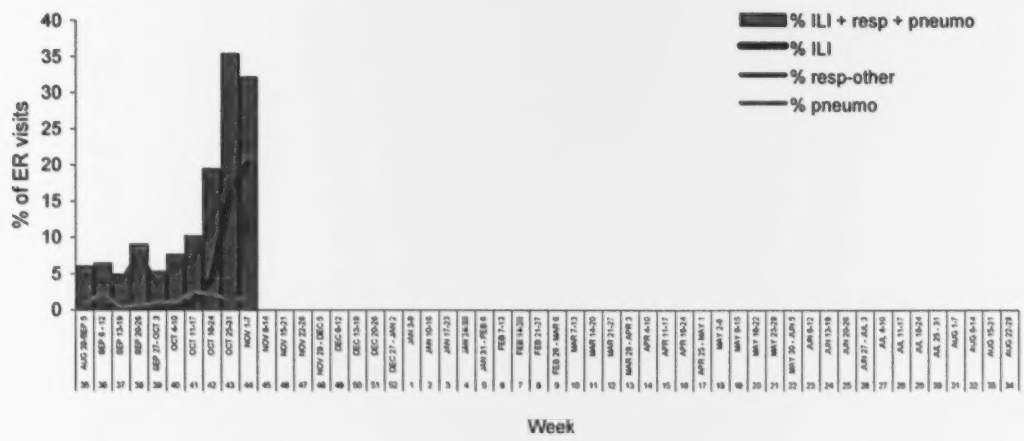
Pandemic H1N1 (pH1N1) Severe Outcomes

From October 20th to November 13th 2009, **10** pH1N1 cases in Yukon have been admitted to hospital. Among hospitalized cases 9 of the 10 had at least one risk factor for influenza complications. 2 out of 10 hospitalized cases have been admitted to ICU. One of the ICU admissions eventually died. This is Yukon's first pH1N1 related death, date of death was November 1st, 2009. The death occurred in a female child, underlying medical conditions were present.

Whitehorse General Hospital Emergency Visits

Since week 42 (Oct 18th to 24th), the WGH emergency department has experienced a sharp increase in the number of patients presenting with influenza-like illness. The percentage of visits related to ILI in week 44 was 20%, up from 16% in week 43. The percentage of visits related to other respiratory symptoms reached a high of 18% in week 43, and decreased to 10% in week 44.

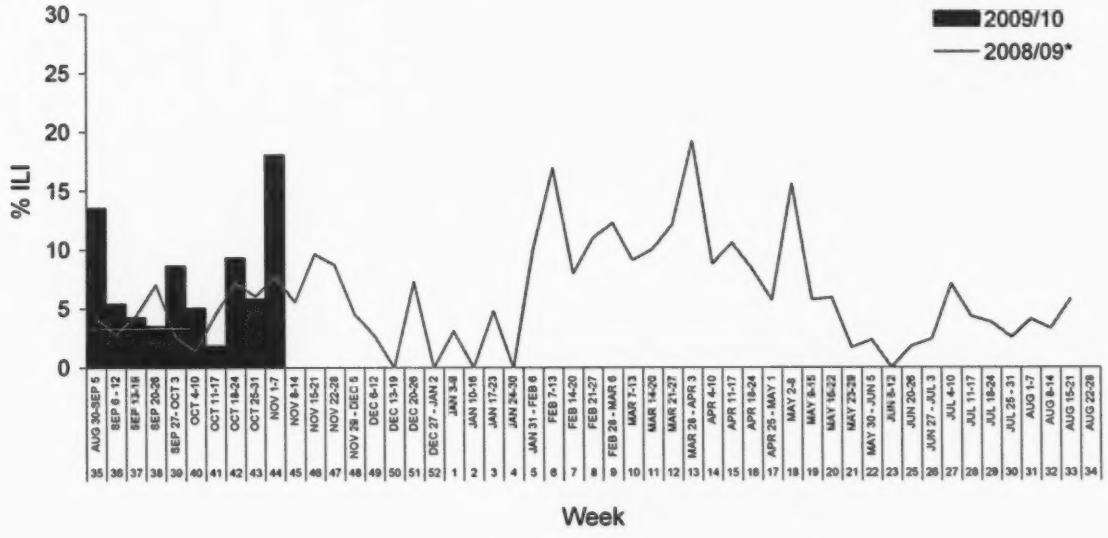
Percent of WGH ER visits with influenza-like illness (ILI), other respiratory symptoms, or pneumonia by week



Sentinel physicians/sites

The percentage of patients presenting to sentinel physicians or sites with ILI increased in week 44 to 18%. The highest proportions of ILI have been seen in the younger age groups (0-19 years).
During the 2008/09 season, less than five sentinel reports were received each week. A new recruitment of sentinel physicians and sites occurred in July 2009. There are presently 18 sentinel physicians/sites across the territory; 67% of sentinels reported in week 44. Yukon's sentinel surveillance system is comprised of all Community Health Centres and participating physicians. (FluWatch Sentinel Surveillance Information http://www.phac-aspc.gc.ca/fluwatch/sent-eng.php)

Percentage of patient visits with influenza-like illness at sentinel physicians and sites by week



*2008/09 weeks are slightly different than those shown (following the Sun-Sat weekly pattern).

FluWatch Reporting

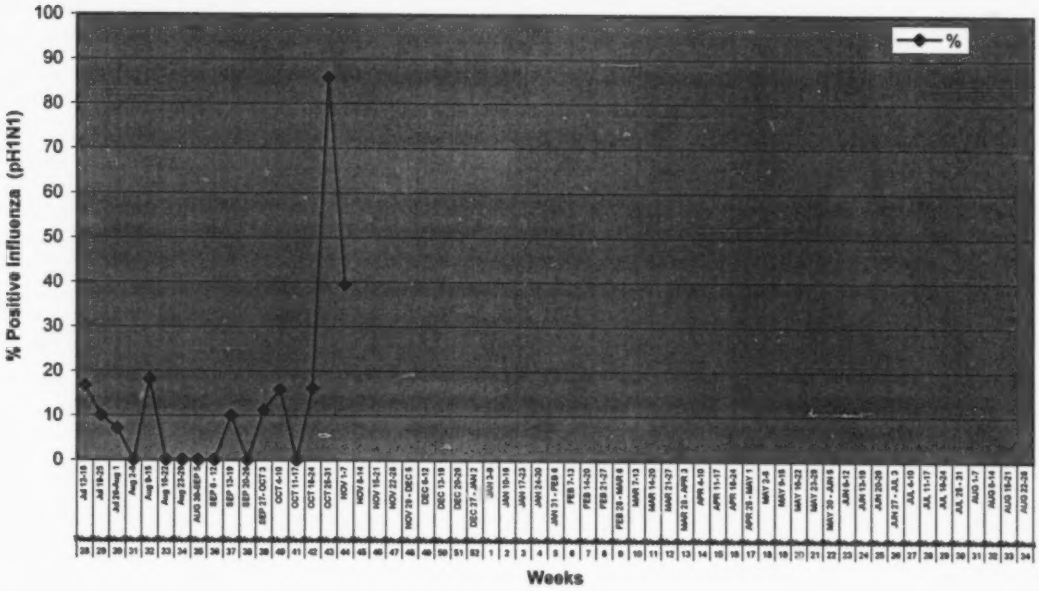
Based on FluWatch activity level definitions, Yukon has reported the following activity levels:
FluWatch activity level definition *http://www.phac-aspc.gc.ca/fluwatch/09-10/def09-10-eng.php*

Week 44	Localized: Sporadically occurring ILI and lab confirmed influenza together with outbreaks of ILI occurring in less than 50% of the influenza surveillance region.

Laboratory Reports

During week 44, 39% of all respiratory specimens submitted were found to be positive for influenza A. This is a decreased from week 43 where 85% positivity was determined, however, this remains elevated compared to weeks 42 and earlier. Of positive influenza specimens 100% were subtyped as being pH1N1.

Percentage of Respiratory Specimens (submitted for testing in Yukon) Diagnosed Positive for Influenza pH1N1 durning weeks 28 - 44



Communities with Laboratory confirmed pH1N1

Cumulative laboratory information indicates that since April, 2009 Whitehorse and 8 out of 13 surrounding communities have had confirmed pH1N1 case reports. * *please note that this represents cases that have been followed by YCDC to date, follow up of positive cases is ongoing.*

Outbreaks

On October 29th, 2009 YCDC was notified of an influenza outbreak within the Whitehorse Correctional facility. The outbreak was contained to fewer than 10 residents who developed symptoms during their stay at the facility or who exhibited symptoms of influenza upon admission. Causative organism of the outbreak was identified as pH1N1.

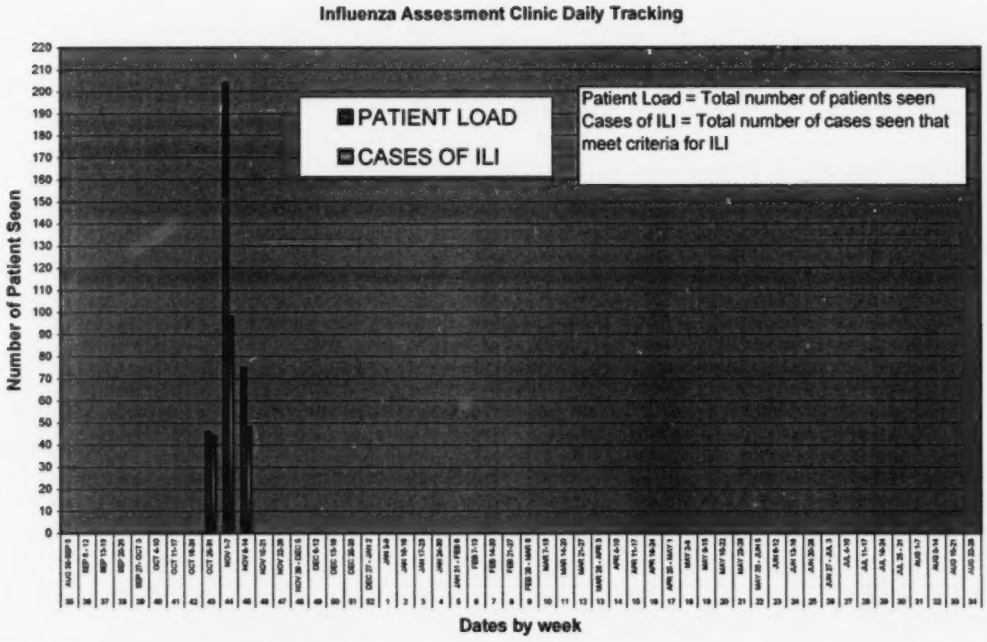
On November 3rd, YCDC became aware of influenza-like illness circulating within the Whitehorse Detox facility.

Schools

During week 44, 6 community schools reported high absenteeism rates as did 2 out of 4 Whitehorse sentinel surveillance schools. An outbreak has not yet been declared in a school setting, however, investigations are underway.

Influenza Assessment Clinic

This downtown Whitehorse clinic opened its doors on October 30th, 2009. The following graph depicts patient volume from October 30th to November 13th, 2009.


Influenza Assessment Clinic Daily Tracking
PATIENT LOAD
CASES OF ILI
Patient Load = Total number of patients seen
Cases of ILI = Total number of cases seen that meet criteria for ILI
Number of Patient Seen
Dates by week

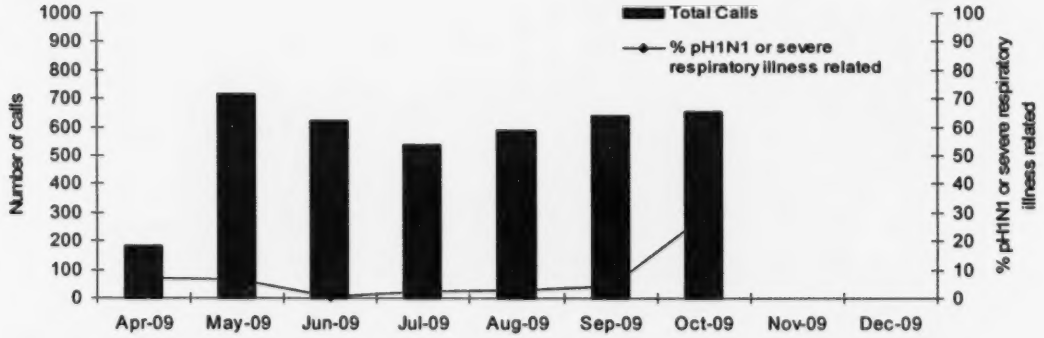
Antiviral Prescriptions/Dispensing

Stay tuned for next week's surveillance report which will include a look at antiviral surveillance.

HealthLink 811

The percentage of calls related to pH1N1 or severe respiratory illness increased sharply in October compared to previous months. In October 28.5% of HealthLink 811 calls were related to pH1N1 or severe respiratory illness, with half of the callers requesting information on symptom management and/or guidance.

Number of calls and percentage related to pH1N1 or severe respiratory illness by month



Description of pH1N1 or severe respiratory illness related call to HealthLink by month

	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09
Triage	69.2	64.6	75.0	50.0	50.0	46.4	50.3		
Education	30.8	31.3	25.0	50.0	37.5	53.6	49.2		
Wayfinding	0.0	4.2	0.0	0.0	12.5	0.0	0.5		

Note: Triage = caller requesting information on symptom management/guidance; Education = caller requesting information about an illness or condition; Wayfinding = caller looking for contact or service directions

CANADA November 1 - 7, 2009

FluWatch

During week 43, national influenza activity levels increased from the previous week. ILI consultation rates increased from 59 to 111 consultations per 1000 patient visits; this is above the expected range for this time of year. People under 20 had the highest consultation rates. The proportion of tests positive for influenza was 36.3% a large increase compared to previous weeks. 99.7 % of all subtyped influenza A specimens were positive for pH1N1; a single specimen was positive for seasonal H1N1 and 13 specimens were positive for H3N2. Two were positive for influenza B. Geographically BC, Alberta Saskatchewan, Ontario, Newfoundland and the Northwest Territories reported widespread activity; however activity levels are also increasing in the rest of the country. *www.phac-aspc.gc.ca/fluwatch/*

National Microbiology Laboratory
Between September 1st and November 12, 2009, 72 influenza isolates were collected from provincial and hospital labs and characterized at the National Microbiology Laboratory (NML):
70 A/California/07/2009 (H1N1)-like§ from AB, ON, SASK, BC, NT, & NU;
1 A/Brisbane/59/2007(H1N1)-like† from AB;
1 B/Brisbane/60/2008-like† from ON
§ A/California/07/2009 (H1N1) is the variant reference virus (pH1N1) selected by WHO for a pandemic influenza A/H1N1 vaccine.
† indicates a strain match to the 2009-10 vaccine

Antiviral Resistance
Drug susceptibility testing at the NML between September 1st and November 12th, 2009 indicated that most pH1N1 (n=67) isolates were sensitive to oseltamivir, 2 viruses were resistant. All influenza B isolates (n=1) and influenza A/H3N2 isolates tested were sensitive and the one seasonal A/H1N1 isolate tested was resistant. All pH1N1 (n=70), seasonal H1N1(n=1), A/H3N2 (n=1) and influenza B (n=1) isolates were sensitive to zanamivir. All pH1N1 (n=62), seasonal H1N1(n=1) and A/H3N2 (n=3) isolates were resistant to amantadine.

Global surveillance has shown that circulating pH1N1 viruses are resistant to amantadine but remain sensitive to zanamivir and oseltamivir, although sporadic cases of oseltamivir resistance have been observed worldwide.

INTERNATIONAL

Northern Hemisphere: In the United States (http://www.cdc.gov/flu/weekly/), in the week ending October 31 influenza activity remained elevated. 37.2% of respiratory specimens tested in reference laboratories in week 43 were positive for influenza, and over 99% percent of the subtyped influenza A viruses were pH1N1. 0.3% of specimens tested positive for Influenza B. The proportion of sentinel physician visits for ILI remained elevated at 7.7%, this is above the seasonal peak for last year. The proportion of deaths attributed to pneumonia and influenza was at the epidemic threshold. In Europe for the week ending November 6 influenza activity continued to increase. Eight of out of 24 countries reported a very high or high activity, of these 4 countries reported high activity for the first time. 48% of sentinel laboratory samples were positive for influenza, and over 99% of specimens positive for influenza A were pH1N1. ***(http://www.eiss.org)***

Southern Hemisphere: Many countries in the Southern Hemisphere previously reporting severe winter influenza activity have now passed the peak. Notably Australia, influenza activity is continuing to decrease with most jurisdictions reporting activity at or near baseline levels. In New Zealand pH1N1 activity continues to decline; consultations with sentinel physicians have declined from the peak in early July, and are now approaching baseline levels. In Chile, ILI activity is within the range expected for this time of year. In South Africa cases are also declining, but pH1N1 remains the dominant subtype. Previously, in June and July of this year the dominant subtype was A/H3N2.

Pandemic H1N1 Influenza Web Sites

Yukon H&SS	*Yukon Health and Social Services: http://www.hss.gov.yk.ca/*
PHAC:	*www.phac-aspc.gc.ca/alert-alerte/swine_200904-eng.php*
BCCDC:	*www.bccdc.ca/dis-cond/a-z/_h/HumanSwineFlu/default.htm*
http://	*www.health.gov.bc.ca/pandemic/response/index.html*
US CDC:	*www.cdc.gov/swineflu/index.htm*
WHO:	*www.who.int/csr/disease/swineflu/en/index.html*

Acronyms

ILI: Influenza-Like Illness

pH1N1: Pandemic H1N1 influenza or swine origin influenza

WHO: World Health Organization

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